

- 1 How does air pressure vary as a person goes higher in Earth's atmosphere?
- A Air pressure increases.
 - B Air pressure decreases.
 - C Air pressure stays the same.
 - D Air pressure increases and then decreases.
- 2 What causes convection currents to form in Earth's atmosphere?
- A the rotation of Earth
 - B the uneven heating of Earth
 - C the position of the Sun
 - D the phase of the Moon
- 3 _____ is a convection current in the atmosphere.
- A Wind
 - B Pressure
 - C Altimeter
 - D Heat
- 4 What term describes the rising and sinking of matter in a circular pattern caused by temperature differences?
- A atmospheric pressure
 - B sea level
 - C wind
 - D convection currents

- 5 _____ is the weight of air pushing down on one area.
- A Wind
 - B Convection currents
 - C Particles
 - D Atmospheric pressure
- 6 Air pressure _____ as a balloon moves up through Earth's atmosphere.
- A does nothing
 - B decreases
 - C increases
 - D stays the same
- 7 What causes air pressure?
- A gravity
 - B electricity
 - C magnetism
 - D conduction
- 8 Cool air is _____ than an equal volume of warm air.
- A the same as
 - B similar
 - C lighter
 - D heavier
- 9 Wind and storms are caused by differences in the _____ of air.
- A pressure
 - B temperature
 - C salinity
 - D water vapor

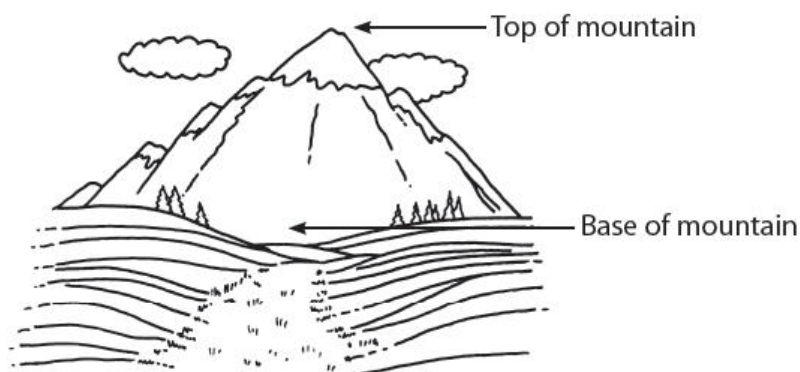
10 Where on Earth are temperatures the warmest due to the Sun's rays striking this part of Earth at a more direct angle?

- A North Pole
- B South Pole
- C Northern Hemisphere
- D Equator

11 What causes air pressure?

- A Earth's revolution
- B friction
- C convection currents
- D gravity

12 Look at the picture of a mountain.



What happens to air pressure as you move from the base of a mountain to the top of a mountain?

- A It remains the same.
- B It decreases.
- C It doubles.
- D It increases.

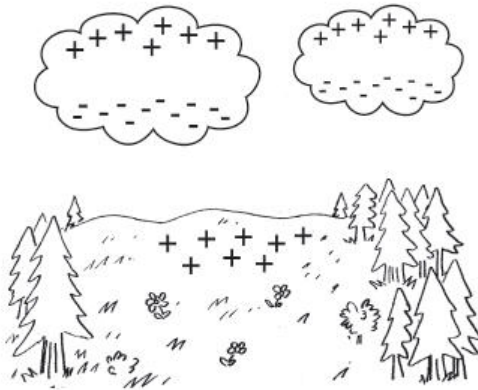
- 13 Why is cool air heavier than warm air?
- A Gas particles in cool air are closer together than those in warm air.
 - B Gas particles are constantly moving.
 - C Gas particles bump into one another.
 - D Gas particles in cool air are farther apart than those in warm air.
- 14 Which of these can affect the climate of an area?
- A the Moon
 - B ocean currents
 - C the planets
 - D ocean waves
- 15 At which place on Earth do the Sun's rays shine at the most direct angle?
- A north pole
 - B south pole
 - C equator
 - D North America
- 16 Why doesn't a closed paper bag collapse under the weight of Earth's atmosphere?
- A Air pressure has no effect on matter.
 - B Air pressure is low at Earth's surface.
 - C Air pressure only affects flat objects.
 - D Air pressure also exists inside the bag.

- 17 What will happen to warm air that is surrounded by cold air?
- A The warm air will rise.
 - B The warm air will sink.
 - C The warm air will stay in the same place.
 - D The warm air will mix with the cold air.
- 18 A large body of air with similar properties all through it is a(n) _____.
- A convection current
 - B front
 - C air mass
 - D cold front
- 19 Which term describes the boundary between two air masses?
- A front
 - B air mass
 - C current
 - D pressure system
- 20 Wind that swirls inward around an area of low pressure is a _____.
- A thunderstorm
 - B boundary
 - C anticyclone
 - D cyclone
- 21 What type of air exists in a continental polar air mass?
- A warm, moist air
 - B warm, dry air
 - C cold, moist air
 - D cold, dry air

22 Which weather system forms only over warm ocean water?

- A a blizzard
- B a hurricane
- C a thunderstorm
- D a tornado

23 The picture shows clouds and Earth.



Which kind of severe weather is about to occur?

- A a tornado
- B a hurricane
- C a lightning strike
- D a hail storm

24 Which term describes a rotating column of air that extends from a thunderstorm to the ground?

- A severe thunderstorm warning
- B funnel cloud
- C tornado
- D tempered

- 25 A _____ is a message sent out to an area where severe thunderstorms with high winds and hail might form.
- A funnel cloud
 - B severe thunderstorm warning
 - C hurricane
 - D severe thunderstorm watch
- 26 _____ describes air that is warmed in winter and cooled in summer because it is near a large body of water.
- A Tempered
 - B Tornado
 - C Monsoon
 - D Boundary
- 27 What type of message is sent out to an area where severe thunderstorms have formed and lets people know that they should get inside as soon as possible?
- A severe thunderstorm warning
 - B severe system
 - C severe thunderstorm watch
 - D tempered thunderstorm
- 28 What is the source of a hurricane's energy?
- A cool land breezes
 - B warm air masses
 - C stationary fronts
 - D warm ocean water

- 29 What must happen for a tornado to form?
- A Layers of wind in a storm must blow at different speeds or in different directions.
 - B Large hailstones must form and fall to Earth.
 - C Strong winds must quickly change direction.
 - D Layers of ice crystals and water droplets in a storm must mix together.
- 30 Which weather instrument measures the amount of moisture in the air?
- A anemometer
 - B barometer
 - C Doppler radar
 - D hygrometer
- 31 Which weather instrument measures the amount of rain that has fallen?
- A rain gauge
 - B hygrometer
 - C anemometer
 - D barometer
- 32 A _____ is a tool that measures air pressure.
- A barometer
 - B hygrometer
 - C radar
 - D weather balloon
- 33 Which weather instrument measures wind speed?
- A radar
 - B anemometer
 - C telegraph
 - D computers

- 34 Some weather information is provided by _____ that float high into Earth's atmosphere.
- A satellites
 - B weather balloons
 - C radars
 - D rain gauges
- 35 Doppler radar is used to track which weather system?
- A fronts
 - B boundaries
 - C tornadoes
 - D weather balloons
- 36 A _____ displays information about air temperature, air pressure, and precipitation.
- A satellite
 - B Doppler radar
 - C weather balloon
 - D weather map
- 37 What technology uses data from many weather stations to predict changes in weather?
- A computer model
 - B Doppler radar
 - C weather balloon
 - D telegraph

38 What does this symbol on a weather map show?



- A a warm front
- B a cold front
- C a cyclone
- D an anticyclone

39 What is one important use for Doppler radar?

- A measuring temperature
- B locating hurricanes
- C measuring air pressure
- D tracking tornadoes